

MidCoast Watersheds Council Meeting
April 4, 2008

Meeting: Introductions

Recorder's Report: There were three official actions last month: approving Corrina Chase as board member, approving the technical team recommendation regarding Beaver Habitat restoration for the Upper Yaquina, and moving the meeting location of the August meeting to Ollala Creek.

Treasurer's Report: So far this fiscal year--as of March 31, 08, the Council had income of \$1,104,546 and expenses of \$1,082,593. There is currently \$45,105 in the bank.

Education Program—Potential Extinction of the native mud shrimp from the invasion of an alien parasite

John Chapman, from OSU's Dept of Fish and Wildlife who works at Hatfield Marine Science Center, presented information that he and Brett Dumbauld, USDA/ARS have been working on in regards to the extinctions or near complete losses of populations of the *Upogebia* mudshrimp from west coast estuaries. Our native mudshrimp have a huge biomass, are found in densities of about 1 pound of mudshrimp per square feet. They are "ecosystem engineers" are really important for the ecology of the estuary, structuring the bottom, creating habitat for clams, worms and other fish that are associated with them, and producing huge amounts of larvae in the spring when salmon are in the estuary. The mudshrimp create perhaps the biggest biomass of larvae that's out there in the zooplankton.

The potential extinction of this mudshrimp is due to the invasion of an exotic isopod (othione) that likely arrived here from Asia in discharges of ballast water. In Asia there are two similar species of mudshrimp that this isopod associates with. However there, this isopod doesn't control the populations. That's not the case here.

The isopod parasite (a male/female pair) invades adult male and female mudshrimp, living under their carapace and sucking their blood, weakening them to the point they cannot reproduce and likely die. The life history, like that of the native mudshrimp, involves transport of the microscopic larvae out of the estuary on tides and then return of larger, older stages back into the estuary. (There is an intermediate host for the isopod in the ocean, a native copepod).

An unfortunate fact is that returning mudshrimp larvae will only settle where there are other mudshrimp, so that once mudshrimp beds are lost from the estuary, new colonization will not occur. Another unfortunate thing is that,

unlike other parasite/host relationships, the population of the exotic isopod does not seem to diminish as the population of mudshrimp goes down—the parasites' larvae settle in spite of the density of the mudshrimp and settle in such high abundance that every last mudshrimp will probably be invaded. Mudshrimp occur exclusively inside estuaries on estuarine mudflats. The awareness of this exotic parasite and the seriousness of the problem has only been recently noted—2004, with a very sharp acceleration from almost no parasitization of the mudshrimp, to wiping out all the mudshrimp beds in a few years. Already all the mudshrimp populations in WA where this isopod have been found have been wiped out (including those in Cedar River, Grays Harbor, Willapa Bay) and all those in CA from Humboldt south have also been lost (San Francisco, Elkhorn, Morro Bay). There is still one bed of mudshrimp left in Coos Bay and there are still mudshrimp populations in Yaquina Bay and other estuaries to the N. (e.g. Tillamook), but it may only be a matter of time, as there is about 60% infestation in all these populations, with a calculated loss of between 92 and 96% of the reproductive capability (i.e. producing only 4% of the eggs that they could)

The only hope might be to culture mudshrimp and use them to restock estuaries once the isopod is gone (ballast water is now having to be treated). The problem is that adult mudshrimp die when taken out of their meter deep, extensive burrows (which they never leave once in place, finding mates through side channels). The breeding of larval mudshrimp to the settling stage is pretty easy so the OR Coast Aquarium could do it. Problem is getting money for this breeding program and for figuring out how to get mudshrimp to be able to recolonize an area

Technical Team Report:

John Spangler discussed two proposals that the technical team recommended that the Council approve and submit to OWEB for funding.

One was a project proposal with 6 landowners willing to do work that addressed the limiting factors as revealed by the Bummer Creek analysis. The projects involve large wood, riparian improvements, fish passage improvements, off channel ponds to improve winter habitat, channel reconfiguration and re-connecting the channels to backwater habitats. There have been a few reiterations of the proposal in front of the tech team and its been improved and ready for recommendation. Rennie moved, Sam 2nd the approval of this proposal and submission to OWEB (unanimous).

The second recommended proposal was for a technical assistance grant to figure out what size of culvert and height of culvert placement would be recommended for improving tidal flow and fish passage to a wetland near 35th St. in S. Beach while avoiding any potential flooding problems for surrounding

landowners. There were coho smolts in the marsh and there is likely cutthroat spawning habitat there. Rennie moved, Kip 2nd the motion to approve submittal (unanimous).

Other issues discussed by the technical team was the Strategic Investment Partnership. Wayne H. brought the idea to the team for a number of watershed councils (from the coast) to partner with public water utilities, cities and water districts to move infrastructure that is hindering restoration opportunities on the coast. The watershed council's role in this would be paying only for that portion that is necessary to facilitate the restoration projects. OWEB has showed some interest in the concept. Before the work went further Wayne and the tech team wanted to test the Council's support of this concept. During the discussion it was brought up that there might not be renewed funding for these SIP projects. In that case it was mentioned that projects could be submitted independently. Motion was made for the Council to consider the feasibility of pursuing a SIP for this type of work. Motion Rennie Ferris, 2nd Mark Stone. Passed unanimously.

The tech team recommended that Wayne send a letter of intent to the Bonneville Env Foundation regarding a 10 year proposal for effectiveness monitoring in the Siletz Basin and adaptation of work based on what is learned by the monitoring. The Siletz was recommended for this focus because it has, in addition to the other runs in the other basins, a summer steelhead run and a spring chinook run, has the support and interest of the Siletz Tribe and because we may be able to partner with the Wild Salmon Center for the Siletz as a N. American Salmon Stronghold area.

Basin Planning team Reports:

Siletz: There is a written report available from the Siletz on this past month's activities. The group heard a very interesting presentation by hydrologist Jeanine Castro on river hydrology, including the affects of riprap. They recommend that the MCWC hear a similar presentation. This Saturday is the annual river clean-up on the Siletz—a lot of this cleanup is done by boats with the donated services of charter operators. There are prizes for participants. This upcoming week, they'll be going to the Oregon State Marine Board meeting, with all their letters of endorsement, to hopefully acheive banning fas motors above the water intakes on the river.

Yaquina-had a meeting in Eddyville with a proposed beaver presentation by Wayne. but there was a very poor turn-out. Next month they propose to do a field trip and in May will hopefully hold a meeting in Nashville and specifically invite the landowners involved (as well as the public) to learn about the results of the Upper Yaquina Limiting Factors Analysis from Steve Trask and Mary Holbert.

Salmon-Drift Watershed Council Report: Two OWEB grants were funded—a wood placement grant in Drift Creek, which revisits a project already done and improves it and a fish passage barrier/culvert inventory and prioritization grant on private lands in the basin not already looked at. May need to hire another person to do the work with Corrina Chase. This summer the USFS will have a botanist grad student as a summer intern who will develop an inventory and devise a plan for the management of invasive species in Pixie Land and Tamara Keys area. There is a potential for a small project in Devil's Lake for native species planting in a wetland area in a landowner's backyard. Are thinking about future fisher grant funds and potential work projects. The volunteer day at Pixieland saw about 30 people show up to do some planting; this was followed the next week with some Willamette U. students on alternative spring break working with Virginia to do ivy control and finish up the planting. They've been working to turn over the Qwest trail at Crowley Creek to the Sitka Center for their maintenance. They may also be going for a Bonneville Environmental Foundation grant for Salmon River monitoring. Earth Day event in Lincoln City has a lot going on and is a fundraiser for the group.

Administrative Committee Report: The committee approved the financial report, held an executive session and then approved the spending of up to \$2000 from our legal fee line item for an insurance issue. The group authorized the expenditure of up to \$1100 from our budget's office supply line item for the purchase of 3 updated computers and one monitor. The committee also authorized up to \$500 for Virginia's time to maintain our website through the end of this fiscal year; keeping data in it up to date. The group also discussed the Bonneville Env. Foundation and Strategic Investment Program programs as mentioned above in the tech team report.

Education Committee Report: Virginia Tardaewether provided a written report and has an email version available.

Coordinator's Report:

The PUD will begin remodeling its building in May, an effort that will go through until at least August. The meeting room the MCWC uses for its meetings will be unavailable. He's seeking input on other ideas. S. Beach community center, Extension Hall at the Fair Grounds and the Yacht Club were initial ideas. Room needs to hold 30+ people.

All 3 of the proposed OWEB grants were funded:

next phase of the rapid bioassessment

new log salvage proposal (some adjustment in budget—more for log hauling; less for log buying)

education proposal funded for \$40,000 (less than what was asked for)

Wayne reported briefly on the presentations heard at the OWEB meeting – one related to invasive species and climate change which also addressed how native species as they expand their range with warming climate to new areas may become potential pests—e.g. pine bark beetle has done major damage as it expands into central BC and may cross Rockies to E. Coast arboreal forests; another example is the range expansion of barred owls which are highly problematic for spotted owls. There was also a presentation on ways to modify forest practices to protect forests from fire. Fire risk damage may become more widespread an issue than it is now and may call for changes. There were also suggestions made about how in planting trees for long-term objectives that it might be important to pick seed sources (within the species type) from sources perhaps hardy to or better adapted to a warmer climate.

All seven of our OWEB proposal were recommended to be accepted. Limiting factors analysis.

OWEB has also recommended funding for the Tamara Quays project minus the monitoring portion, water quality work minus toxin levels for Devils Lake.

April OWEB cycle: limiting factors analysis, tree planting workshop with landowners. Culvert assessment. Log placement

Staff recommendations are on the OWEB website at this time

Announcements: Climate change summit registration in LC is going on now.

Adjourn